HW1Code – Ruth Steinberg

1. **AddTwo.java:**

```
public class AddTwo {

   public static void main(String[] args) {

      /* get 2 numbers from the command-line and define them as a variable of type int */

      int num1 = Integer.parseInt(args[0]);

      int num2 = Integer.parseInt(args[1]);

      /* define a new variable "sum" that represents the sum of num1 and num2 */

      int sum = num1 + num2;

      // print

      System.err.println (num1 + " + " + num2 + " = " + sum);

   }

}
```

2. **Coins.java:**

```
public class Coins {
   public static void main(String[] args) {
      /* get amount of cents from the command-line and define her as a variable of type int */
      int sumCents = Integer.parseInt(args[0]);
      /* calculate the amount of quarters and define the amount as a variable of type int */
      int quarters = sumCents / 25;
      // calculate the remaining cents
      int cents = sumCents - (quarters*25);
      // print
      System.err.println ("Use " + quarters + " quarters and " + cents + " cents");
   }
}
```

3. **LinearEq.java:**

```
public class LinearEq {
    public static void main(String[] args){
        /* get 3 numbers from the command-line and define them as a variable of
type double */
        double a = Double.parseDouble(args[0]);
        double b = Double.parseDouble(args[1]);
        double c = Double.parseDouble(args[2]);
        // calculate x: a * x + b = c >  a * x = c - d > x = (c-d) / a.
        double x = (c - b) / a;
        // print
        System.out.println ( "x = " + x);
    }
}
```

4. **Triangle.java:**

```
public class Triangle {

   public static void main(String[] args) {

      /* get 3 numbers from the command-line and define them as a variable of type int */

      int a = Integer.parseInt(args[0]);

      int b = Integer.parseInt(args[1]);

      int c = Integer.parseInt(args[2]);

      /* define a boolean variable that represent the answaer (if the 3 numbers can form triangle) */

      boolean answer = false;

      // check if any two sides is greater than the length of the remaining side

      if(((a+b)>=c) && ((b+c)>=a) && ((a+c)>=b)) {

         answer = true;

      }

      // print the 3 numbers and the answer

      System.out.println(a + " , " + b + " , " + c + ": " + answer);

   }

}
```

5. **Gen3:**

```
import java.util.Random;

public class Gen3 {
   public static void main(String[] args) {
      // create 3 new objects from type Random
      Random randomNum1 = new Random();
      Random randomNum2 = new Random();
      Random randomNum3 = new Random();
      /* get 2 numbers from the command-line that represents the min and the max of the range */
      int start = Integer.parseInt (args[0]);
      int end = Integer.parseInt (args[1]);
      /* create 3 varieble from type int, that any varieble is random number between arg[0] and arg[1] */
      int a = randomNum1.nextInt (start, end);
      int b = randomNum2.nextInt (start, end);
      int c = randomNum3.nextInt (start, end);
      /*  create new varieble that represents the smallest number from a, b, c.
      first - the min is the smallest number from only a and b */
      int min = Math.min (a, b);
      // check if c is smallest than min
      If (Math.min (a, b) > c) {
         min = c; // if c is smallest than min, c is the final min.
      }
      // print
      System.out.println (a);
      System.out.println (b);
      System.out.println (c);
      System.out.println ("The minimul generated number was: " + min);
   }
}
```